\_\_\_\_\_\_

Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2010; month=4; day=13; hr=14; min=53; sec=3; ms=292; ]

\_\_\_\_\_\_

\*\*\*\*\*\*\*\*\*\*\*\*

Reviewer Comments:

<130> XI 1292-03

<150> DE 102 44 863.9

<151> 2002-09-23

<160> 40

The submitted file lacked the mandatory numeric identifiers <140>, <141> and their responses.

The <140> response is the current application number. The <141> response is the current application filing date; please use YYYY-MM-DD date format.

The number provided for numeric identifier <160> must match the total number of sequences in the file. There were 41 sequences counted in this sequence listing. Numeric identifier <160> states there are a total of 40 sequences. Please make all necessary changes.

<210> 13

<211> 45

<212> DNA

<213> Primer

<220>

<221> misc\_feature

<222> (1)..(45)

<223> gag-mut2-1

Numeric identifier <213> can only be one of three choices, "Scientific name, i.e. Genus/species, Unknown or Artificial Sequence." Numeric identifier <213> may not be the name of a gene or protein. For all sequences using "Unknown" or "Artificial sequence", for numeric identifier <213>, a mandatory feature is required to explain the source of the genetic material. The feature consists of <220>, which remains blank and, <223>, which states the source of the genetic material. To explain the source, if the sequence is put together from several organisms, please list those organisms. If the sequence is made in the laboratory, please indicate that the sequence is synthesized. Please check for similar errors and make all necessary changes.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## Validated By CRFValidator v 1.0.3

Application No: 10528748 Version No: 3.0

Input Set:

Output Set:

**Started:** 2010-04-05 11:25:07.249

Finished: 2010-04-05 11:25:12.251

Elapsed: 0 hr(s) 0 min(s) 5 sec(s) 2 ms

Total Warnings: 3

Total Errors: 32

No. of SeqIDs Defined: 40

Actual SeqID Count: 40

Error code		Error Description								
W	213 Artificial or Unknown found in <213> in SEQ ID (12)									
E	224	<220>, $<223>$ section required as $<213>$ has Artificial sequence or Unknown in SEQID (12)								
E	356	Organism is not permitted in <213> in SEQ ID (13)								
E	356	Organism is not permitted in <213> in SEQ ID (14)								
E	356	Organism is not permitted in <213> in SEQ ID (15)								
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E	356	Organism is not permitted in <213> in SEQ ID (19)								
E	356	Organism is not permitted in <213> in SEQ ID (20)								
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E	356	Organism is not permitted in <213> in SEQ ID (29)								

## Input Set:

## Output Set:

**Started:** 2010-04-05 11:25:07.249 **Finished:** 2010-04-05 11:25:12.251

Elapsed: 0 hr(s) 0 min(s) 5 sec(s) 2 ms

Total Warnings: 3

Total Errors: 32

No. of SeqIDs Defined: 40

Actual SeqID Count: 40

Error code		Error Description
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E	356	Organism is not permitted in <213> in SEQ ID (31)
Ε	356	Organism is not permitted in <213> in SEQ ID (32) This error has occured more than 20 times, will not be displayed
E	311	Invalid field content in <220> in SEQ ID (40)
Ε	249	Order Sequence Error <220> -> <211>; Expected Mandatory Tag: <400> in SEQID ( $40$ )
W	402	Undefined organism found in <213> in SEQ ID (40)
W	333	tabs used in amino acid numbering SEQID (40)
E	250	Structural Validation Error; Sequence listing may not be indexable

## SEQUENCE LISTING

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<130> XI 1292-03
<150> DE 102 44 863.9
<151> 2002-09-23
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<sup>&</sup>lt;213> Feline leukemia virus

<sup>&</sup>lt;221> gene

<sup>&</sup>lt;222> (1)..(1527)

<sup>&</sup>lt;223> DNA sequence wild type "gag" gene

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atttcacagg	tcgaggagag	aatcttcgcc	ccggggccat	atggacaccc	agatcaaatc	240	
ccttatatta	ccacgtggag	atccctagcc	acagaccccc	ctccatgggt	tegeceatte	300	
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gcgccgcaac	cctcttcccc	ccaccccgtc	ctctaccccg	ttctccccaa	accagacccc	420	
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<sup>&</sup>lt;212> PRT

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Trp	Asn	Leu	Ala 20	Phe	Leu	Val	Gly	Ile 25	Leu	Phe	Thr	Ile	Asp 30	Ile	Gly
Met	Ala	Asn 35	Pro	Ser	Pro	His	Gln 40	Ile	Tyr	Asn	Val	Thr 45	Trp	Val	Ile
Thr	Asn 50	Val	Gln	Thr	Asn	Thr 55	Gln	Ala	Asn	Ala	Thr 60	Ser	Met	Leu	Gly
Thr 65	Leu	Thr	Asp	Ala	Tyr 70	Pro	Thr	Leu	His	Val 75	Asp	Leu	Суз	Asp	Leu 80
Val	Gly	Asp	Thr	Trp 85	Glu	Pro	Ile	Val	Leu 90	Asn	Pro	Thr	Asn	Val 95	Lys
His	Gly	Ala	Arg 100	Tyr	Ser	Ser	Ser	Lys 105	Tyr	Gly	Суз	Lys	Thr 110	Thr	Asp
Arg	Lys	Lys 115	Gln	Gln	Gln	Thr	Tyr 120	Pro	Phe	Tyr	Val	Cys 125	Pro	Gly	His
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Gly 145	Phe	Cys	Ala	Ala	Trp 150	Gly	Суз	Glu	Thr	Thr 155	Gly	Glu	Ala	Trp	Trp 160
Lys	Pro	Thr	Ser	Ser 165	Trp	Asp	Tyr	Ile	Thr 170	Val	Lys	Arg	Gly	Ser 175	Ser
Gln	Asp	Asn	Ser 180	Суз	Glu	Gly	Lys	Cys 185	Asn	Pro	Leu	Val	Leu 190	Gln	Phe

Thr Gln Lys Gly Arg Gln Ala Ser Trp Asp Gly Pro Lys Met Trp Gly

195 200 205

Leu Arg Leu Tyr Arg Thr Gly Tyr Asp Pro Ile Ala Leu Phe Thr Val 210 215 220 Ser Arg Gln Val Ser Thr Ile Thr Pro Pro Gln Ala Met Gly Pro Asn 230 235 240 Leu Val Leu Pro Asp Gln Lys Pro Pro Ser Arg Gln Ser Gln Thr Gly 245 250 255 Ser Lys Val Ala Thr Gln Arg Pro Gln Thr Asn Glu Ser Ala Pro Arg 260 265 270 Ser Val Ala Pro Thr Thr Met Gly Pro Lys Arg Ile Gly Thr Gly Asp 275 280 285 Arg Leu Ile Asn Leu Val Gln Gly Thr Tyr Leu Ala Leu Asn Ala Thr 290 295 300 Asp Pro Asn Lys Thr Lys Asp Cys Trp Leu Cys Leu Val Ser Arg Pro 310 315 Pro Tyr Tyr Glu Gly Ile Ala Ile Leu Gly Asn Tyr Ser Asn Gln Thr 325 330 335 Asn Pro Pro Pro Ser Cys Leu Ser Thr Pro Gln His Lys Leu Thr Ile 345 340 350 Ser Glu Val Ser Gly Gln Gly Met Cys Ile Gly Thr Val Pro Lys Thr 355 360 365 His Gln Ala Leu Cys Asn Lys Thr Gln Gln Gly His Thr Gly Ala His 370 375 Tyr Leu Ala Ala Pro Asn Gly Thr Tyr Trp Ala Cys Asn Thr Gly Leu 385 390 395 400 Thr Pro Cys Ile Ser Met Ala Val Leu Asn Trp Thr Ser Asp Phe Cys 410 415 405

Val Leu Ile Glu Leu Trp Pro Arg Val Thr Tyr His Gln Pro Glu Tyr

425

430

Val Tyr Thr His Phe Ala Lys Ala Val Arg Phe Arg Arg Glu Pro Ile 440 Ser Leu Thr Val Ala Leu Met Leu Gly Gly Leu Thr Val Gly Gly Ile 455 460 Ala Ala Gly Val Gly Thr Gly Thr Lys Ala Leu Leu Glu Thr Ala Gln 465 470 475 480 Phe Arg Gln Leu Gln Met Ala Met His Thr Asp Ile Gln Ala Leu Glu 485 490 495 Glu Ser Ile Ser Ala Leu Glu Lys Ser Leu Thr Ser Leu Ser Glu Val 500 505 Val Leu Gln Asn Arg Arg Gly Leu Asp Ile Leu Phe Leu Gln Glu Gly 515 520 525 Gly Leu Cys Ala Ala Leu Lys Glu Glu Cys Cys Phe Tyr Ala Asp His 530 535 540 Thr Gly Leu Val Arg Asp Asn Met Ala Lys Leu Arg Glu Arg Leu Lys 550 555 560 545 Gln Arg Gln Gln Leu Phe Asp Ser Gln Gln Gly Trp Phe Glu Gly Trp 565 570 575 Phe Asn Lys Ser Pro Trp Phe Thr Thr Leu Ile Ser Ser Ile Met Gly 580 585 590 Pro Leu Leu Ile Leu Leu Ile Leu Phe Gly Pro Cys Ile Leu 595 600 605 Asn Arg Leu Val Gln Phe Val Lys Asp Arg Ile Ser Val Val Gln Ala 615 620 610 Leu Ile Leu Thr Gln Gln Tyr Gln Gln Ile Lys Gln Tyr Asp Pro Asp 625 630 635

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            40
   35
Gly Trp Pro Arg Glu Gly Thr Phe Thr Ile Asp Asn Ile Ser Gln Val
  50 55 60
Glu Glu Arg Ile Phe Ala Pro Gly Pro Tyr Gly His Pro Asp Gln Ile
          70
                  75
65
Pro Tyr Ile Thr Thr Trp Arg Ser Leu Ala Thr Asp Pro Pro Pro Trp
         85 90 95
Val Arg Pro Phe Leu Pro Pro Lys His Pro Arg Thr Asp Pro Pro
      100 105 110
Glu Pro Leu Ser Pro Gln Pro Leu Ala Pro Gln Pro Ser Ser Pro His
  115 120 125
Pro Val Leu Tyr Pro Val Leu Pro Lys Pro Asp Pro Pro Lys Ala Pro
        135 140
  130
Val Leu Pro Pro Asn Pro Ser Ser Pro Leu Ile Asp Leu Leu Thr Glu
                      155
           150
145
Glu Pro Pro Tyr Pro Gly Gly His Gly Pro Thr Pro Pro Ser Gly
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165 170 175

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Pro Asr 210		Arg	Pro	Gln	Tyr 215	Trp	Pro	Phe	Ser	Ala 220	Ser	Asp	Leu	Tyr
Asn Trp 225	Lys	Leu	His	Asn 230	Pro	Pro	Phe	Ser	Gln 235	Asp	Pro	Val	Ala	Leu 240
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Asp Cys	s Gln	Gln 260	Leu	Leu	Gln	Ala	Leu 265	Leu	Thr	Ala	Glu	Glu 270	Arg	Gln
Arg Val	275					280					285			-
Pro Thi	)				295					300				
Pro Asr				310					315					320
Tyr Arc			325					330					335	
Thr Asr		340					345					350		
Pro Ala	355					360	_				365			
370	)				375					380				
385	- тАт	GIII	SET	390	110	чэҺ	116	AIG	395	шур	шеu	OIII	ALG	400

Glu Gly Leu Gln Gly Phe Thr Leu Ser Asp Leu Leu Lys Glu Ala Glu 405 410 415 Lys Ile Tyr Asn Lys Arg Glu Thr Pro Glu Glu Arg Glu Glu Arg Leu 425 420 Trp Gln Arg Gln Glu Glu Arg Asp Lys Lys Arg His Lys Glu Met Thr 435 440 Lys Val Leu Ala Thr Val Val Ala Gln Asn Arg Asp Lys Asp Arg Gly 455 Glu Ser Lys Leu Gly Asp Gln Arg Lys Ile Pro Leu Gly Lys Asp Gln 465 470 475 480 Cys Ala Tyr Cys Lys Glu Lys Gly His Trp Val Arg Asp Cys Pro Lys 485 490 495 Arg Pro Arg Lys Lys Pro Ala Asn Ser Thr Leu Leu 500 505 <210> 5 <211> 1530 <212> DNA <213> Feline leukemia virus <220> <221> misc\_feature <222> (1)..(1530) <223> DNA sequence of the mutagenized "gag" gene <400> 5 atgggccaga ccatcaccac ccccttgagc ctgaccctga accactggag cgaggtgcag 120 gccagggcca ggaaccaggg cgtggaggtg aggaagaaga agtggatcac cctgtgcgag gccgagtggg tgatgatgaa cgtgggctgg cccagggagg gcaccttcac catcgacaac 180 atcagecagg tggaggagag gatettegee eeeggeeeet aeggeeacee egaceagate 240 300 ccctacatca ccacctggag gagcctggcc accgacccc ccccctgggt gaggcccttc ctgcccccc ccaagcaccc caggaccgac cccccgagc ccctgagccc ccagcccctg 360 gcccccagc ccagcgcccc ccccatcagc agcctgtacc ccgtgctgcc caagcccgac 420

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480

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20 25 30

Lys Lys Trp Ile Thr Leu Cys Glu Ala Glu Trp Val Met Met Asn Val 35 40 45

Gly Trp Pro Arg Glu Gly Thr Phe Thr Ile Asp Asn Ile Ser Gln Val50  $\phantom{0}55$   $\phantom{0}60$ 

Glu Glu Arg Ile Phe Ala Pro Gly Pro Tyr Gly His Pro Asp Gln Ile 65 70